

A Study on the Effect of Social Interaction Mode of Xiaohongshu on Consumption Stickiness of Generation Z—An Empirical Analysis Based on SOR Model and Social Presence Theory

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Abstract— In the era of digital economy and social e-commerce, Xiaohongshu has become one of the most influential lifestyle sharing and consumption decision platforms for Generation Z. Based on the Stimulus-Organism-Response (SOR) model and social presence theory, this study aims to explore how social interaction modes of Xiaohongshu affect the consumption stickiness of Generation Z. A questionnaire survey was conducted among local young consumers, and 304 valid samples were collected. SPSS 22.0 was used to conduct reliability and validity analysis, correlation analysis, multiple linear regression and mediating effect test. The empirical results show that: (1) Content factors, social interaction, KOL marketing and platform interface design of Xiaohongshu all have significant positive impacts on user experience; (2) User experience plays a significant mediating role between platform factors and consumption stickiness; (3) Social presence significantly enhances the transmission path from social interaction to consumption stickiness; (4) Content authenticity, local community interaction and influencer trust are the key driving forces for improving user stickiness. This study enriches the theoretical system of social e-commerce user stickiness, expands the application scenarios of SOR model and social presence theory, and provides practical implications for platform operation optimization and brand precision marketing targeting Generation Z groups.

Keywords— Xiaohongshu, social interaction, Generation Z, consumption stickiness, SOR model, social presence theory, user experience, social e-commerce.

I. INTRODUCTION

1.1 Research Background

With the rapid development of mobile Internet and social media, China's online consumption has entered a highly socialized stage. According to the 55th Statistical Report on China's Internet Development released by the China Internet Network Information Center [1], the number of online shopping users in China has reached 974 million, and social media has deeply penetrated into the whole process of consumer information searching, experience sharing and purchase decision.

Generation Z, born between 1995 and 2009, is known as "digital natives". They grow up surrounded by the Internet, mobile phones and social platforms, and their consumption logic is significantly different from previous generations. They pay more attention to emotional experience, social identity, personalized expression and visual aesthetics [2, 3]. In this context, Xiaohongshu, as a typical UGC-based social e-commerce platform, has become the core "grass-growing" and consumption decision-making scene for young people.

Consumption stickiness reflects users' continuous willingness to use a platform and repeat purchase

behavior, which is critical to platform commercial value and brand loyalty. At present, many studies focus on purchase intention, impulse buying and user participation, but lack systematic and in-depth empirical analysis on the formation mechanism of consumption stickiness under social interaction scenarios. In addition, few studies integrate SOR model and social presence theory to explain how interactive behaviors such as likes, comments, sharing and topic participation drive long-term user stickiness. Therefore, this study takes Xiaohongshu as the research carrier, focuses on Generation Z groups, and reveals the internal mechanism of social interaction affecting consumption stickiness.

1.2 Research Significance

1.2.1 Theoretical Significance

First, this study integrates SOR model and social presence theory to construct a formation model of consumption stickiness, which improves the explanatory power of traditional consumer behavior theory in social e-commerce. Second, it divides social interaction into content interaction, interpersonal interaction and community interaction, and clarifies the differential effects of different dimensions, which enriches the research dimension of platform interaction. Third, it provides empirical evidence for experiential marketing theory in the digital scene and supplements the research on Generation Z consumption behavior in Chinese context.

1.2.2 Practical Significance

For Xiaohongshu platform, the conclusions help optimize interaction functions, content audit mechanism and user experience design. For brands and merchants, they can carry out more effective KOL cooperation, UGC operation and community marketing. For the whole social e-commerce industry, this study provides a reference for improving user retention, repurchase rate and commercial transformation efficiency.

1.3 Research Methods and Innovations

This study adopts three methods: literature analysis, questionnaire survey and empirical statistical analysis. The main innovations are as follows:(1) It uses the dual theoretical framework of SOR + social presence to reveal the psychological path from interaction stimulation to stickiness response.(2) It carries out empirical test based on actual local user data, which improves the applicability of conclusions.(3) It combines demographic differences to provide targeted strategies for platform and brand marketing.

II. LITERATURE REVIEW AND THEORETICAL BASIS

2.1 Core Concepts

2.1.1 Social Interaction on Xiaohongshu

Social interaction in social e-commerce mainly includes users' behaviors such as likes, comments, collections, shares, topic participation and online consultations. On Xiaohongshu, interaction is divided into three dimensions: content interaction (viewing notes, searching information), interpersonal interaction (communication between users and authors) and community interaction (topic challenges, check-in activities) [4, 5].

2.1.2 Generation Z and Consumption Stickiness

Generation Z has typical characteristics such as digital dependence, social sharing, sensory preference and rational-emotional dual decision-making. Consumption stickiness includes two dimensions: attitudinal stickiness (emotional dependence, trust and identity) and behavioral stickiness (continuous use, repeated purchase and active recommendation) [6, 7].

2.1.3 Social Presence

Social presence refers to the degree to which users feel the real existence of others and form emotional connection in media communication. Rich interaction cues and real content help improve social presence, thereby enhancing trust and continuous use intention[8, 9].

2.2 Theoretical Foundation

2.2.1 SOR Model

The SOR model [10] holds that external environmental stimuli (S) affect individuals' internal psychological state (O), and then lead to behavioral responses (R). In this study:

- Stimulus (S): content factors, social interaction, KOL marketing, platform interface;
- Organism (O): social presence, user experience;
- Response (R): consumption stickiness.

2.2.2 Social Presence Theory

Social presence can reduce the psychological distance in virtual environment, enhance trust and emotional connection, and is an important mediator in the process of social interaction affecting user behavior [7, 11].

2.2.3 Experiential Marketing

Experiential marketing proposed by Schmitt [12] includes five dimensions: sense, feel, think, act and relate. It is highly consistent with Xiaohongshu's content display, interactive experience and scenario-based consumption logic.

2.3 Research Hypotheses

Based on the above theories and literature, this study proposes the following hypotheses:

H1: Content factors of Xiaohongshu have a significant positive impact on user experience.

H2: Social interaction of Xiaohongshu has a significant positive impact on user experience.

H3: KOL marketing of Xiaohongshu has a significant positive impact on user experience.

H4: Platform interface design of Xiaohongshu has a significant positive impact on user experience.

H5: User experience plays a mediating role between platform factors and consumption stickiness.

H6: Social presence plays a mediating role between social interaction and consumption stickiness.

III. RESEARCH DESIGN

3.1 Variable Measurement

All variables are measured using mature scales revised to adapt to Xiaohongshu scenarios, with a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

- Independent variables: content factors, social interaction, KOL marketing, platform interface;
- Mediating variables: social presence, user experience;
- Dependent variable: consumption stickiness;
- Control variables: gender, age, occupation, monthly consumption, region.

3.2 Questionnaire Design and Data Collection

The questionnaire consists of three parts: basic demographic information, platform usage behavior and core variable measurement items. A total of 309 questionnaires were distributed, and 304 valid questionnaires were obtained after eliminating invalid ones, with an effective recovery rate of 98.4%.

3.3 Sample Profile

The sample structure is consistent with the user characteristics of Xiaohongshu: female accounts for 83.2%, age 21–26 accounts for 81.6%, students and office workers account for 87.2%, monthly consumption below 500 yuan accounts for 86.8%, and the main active period is 18:00–24:00.

3.4 Data Analysis Methods

SPSS 22.0 was used for data processing, including descriptive statistics, reliability and validity test, correlation analysis and multiple linear regression analysis.

IV. EMPIRICAL RESULTS

4.1 Reliability and Validity Test

The Cronbach's α coefficients of all variables are higher than 0.8, indicating good internal consistency. The KMO value is 0.863, and Bartlett's test of sphericity is significant at the 0.001 level, indicating that the data are suitable for factor analysis. The scale has good reliability and validity.

4.2 Correlation Analysis

Pearson correlation analysis shows that content factors, social interaction, KOL marketing, platform interface, user experience and consumption stickiness are significantly positively correlated ($p < 0.01$), which provides a basis for regression analysis.

4.3 Regression Analysis and Hypothesis Testing

Regression results show that:

- Content factors ($\beta = 0.331$, $p < 0.001$), KOL marketing ($\beta = 0.173$, $p < 0.01$) and platform interface ($\beta = 0.394$, $p < 0.001$) have significant positive predictive effects on user experience.
- Social interaction also shows a positive effect, supporting H1, H2, H3 and H4.
- User experience plays a significant partial mediating role, supporting H5.
- Social presence plays a significant mediating role in the path of social interaction affecting stickiness, supporting H6.

4.4 Control Variable Analysis

Region and occupation have significant differences in user perception, while gender, age, monthly consumption and time period have no significant impact.

V. CASE ANALYSIS

This study selects several representative brands in beauty, food and local life services with high interaction on Xiaohongshu. The results show that brands with high user stickiness have common characteristics:(1) Prioritize real UGC content to enhance credibility;(2) Launch localized topics and check-in activities to improve community participation;(3) Cooperate with local KOCs and mid-tail influencers to enhance closeness;(4) Strengthen comment-area interaction to improve social presence.

These cases further verify that real content, high-frequency interaction and community identity can significantly improve Generation Z's consumption stickiness.

VI. CONCLUSIONS AND MANAGEMENT IMPLICATIONS

6.1 Main Conclusions

First, content factors, social interaction, KOL marketing and platform interface of Xiaohongshu can significantly improve user experience and then enhance consumption stickiness. Second, platform interface and content authenticity have the strongest effects, followed by KOL marketing. Third, social presence and user experience play important mediating roles in the formation of stickiness. Fourth, demographic variables such as region and occupation have differentiated impacts, which means platforms and brands should adopt targeted strategies.

6.2 Platform Optimization Implications

- (1) Improve content authenticity and quality, strengthen the review of false promotion, and increase high-quality content in food, beauty and other popular fields.
- (2) Optimize interactive operation processes, launch localized interaction modes such as city-level check-in and regional topics, and enhance community belonging.
- (3) Improve system fluency during night peak hours, optimize page loading and operation paths.
- (4) Improve after-sales service and low-threshold consumption functions to meet the needs of young groups with limited consumption power.

6.3 Brand Marketing Implications

- (1) Cooperate with local KOCs and influencers to create real and scenario-based content.
- (2) Design low-participation-cost interactive activities to stimulate UGC sharing and word-of-mouth communication.
- (3) Focus on experiential marketing and integrate sensory, emotional and social elements to fit the consumption preferences of Generation Z.

VII. LIMITATIONS AND FUTURE RESEARCH

7.1 Limitations

First, the sample is mainly from local regions, which has certain limitations in universality. Second, cross-sectional data cannot reflect long-term dynamic changes. Third, this study does not involve emerging interactive forms such as live streaming and AI recommendation.

7.2 Future Research

Future research can expand the sample scope to carry out multi-regional and cross-platform comparative studies. Longitudinal tracking data can be used to explore the dynamic evolution of consumption stickiness. In addition,

introducing new variables such as live broadcast interaction, algorithm recommendation and cultural differences will help further improve the theoretical model.

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